

THE CLAIMS

What is claimed is:

1. An internal long bone fracture fixation device for the treatment of a long bone fracture comprising:
a plurality of bone plates affixable to a cortical surface of a long bone; and
at least one of transverse member affixable to and interposed between the plurality of bone plates.
2. The device according to claim 1, wherein the plurality of bone plates are affixed along a longitudinal length of the long bone.
3. The device according to claim 1, wherein the plurality of bone plates substantially prevents a longitudinal movement of the long bone fracture.
4. The device according to claim 1, wherein the plurality of bone plates are conformable to the cortical surface of the long bone.
5. The device according to claim 1, wherein the at least one transverse member substantially prevents a torsional movement of the long bone fracture.
6. The device according to claim 1, wherein the plurality of bone plates comprises first and second bone plates affixed along a longitudinal length of the long bone.
7. The device according to claim 6, wherein each of the first and second bone plates includes a plurality of screw holes extending therethrough for receiving a bone screw to be driven into the long bone.

8. The device according to claim 6, wherein each of the first and second bone plates includes a plurality of transverse member attachment holes extending therethrough each configured for receiving a transverse member attachment screw.
9. The device according to claim 8, wherein first and second ends of each of the at least one transverse member have a screw hole therethrough for receiving a transverse member attachment screw.
10. The device according to claim 9, wherein the transverse member attachment holes are threaded holes.
11. The device according to claim 9, wherein the transverse member attachment screws are bone screws.
12. The device according to claim 9, wherein each of the first and second bone plates includes a plurality of notched segments, such that each of the plurality of transverse member attachment holes is positioned within a notch segment.
13. The device according to claim 9, wherein the first and second ends are pivotally connected to the transverse member.
14. The device according to claim 6, wherein first and second ends of each of the at least one transverse member include a hook member for engaging the first and second bone plates.
15. The device according to claim 14, wherein the hook members are pivotally connected to the first and second ends of the transverse members.
16. The device according to claim 1, wherein the transverse members have an adjustable length.

17. An internal long bone fracture fixation device for the treatment of a long bone fracture comprising:

first and second bone plates affixable to a cortical surface of a long bone along a longitudinal length of the long bone; and

a plurality of transverse members affixable to and interposed between the first and second bone plates, wherein the plurality of transverse members substantially prevent a torsional movement of the long bone fracture.

18. The device according to claim 17, wherein the first and second bone plates each includes a plurality of screw holes extending therethrough for receiving a bone screw to be driven into the long bone.

19. The device according to claim 18, wherein the first and second bone plates each includes a plurality of threaded holes extending there through.

20. The device according to claim 19, wherein first and second ends of the transverse members each have a screw hole therethrough for receiving a transverse member attachment screw threadable into the threaded holes of the first and second bone plates.

21. The device according to claim 20, wherein the first and second bone plates each includes a plurality of notched segments, such that each of the plurality of threaded holes is positioned within a notch segment.

22. The device according to claim 20, wherein the first and second ends are pivotally connected to the transverse members.

23. The device according to claim 17, wherein first and second ends of each of the transverse members include a hook member for engaging the bone plates.

24. The device according to claim 23, wherein the hook members are pivotally connected to the first and second ends of the transverse members.

25. The device according to claim 17, wherein the transverse members have an adjustable length.

26. An internal fracture fixation device for the treatment of a long bone fracture comprising:
first and second bone plates affixable to a cortical surface of a long bone along a longitudinal length of the long bone, the first and second bone plates each including a plurality of screw holes extending therethrough for receiving a bone screw to be driven into the long bone, and a plurality of threaded holes extending therethrough; and

a plurality of transverse members affixable to and interposed between the first and second bone plates, the transverse members each including first and second ends, the first and second ends each having a screw hole therethrough for receiving a transverse member attachment screw threadable into the threaded holes on the first and second bone plates,

wherein the first and second bone plates substantially prevent longitudinal movement of the long bone fracture and the plurality of transverse members substantially prevent torsional movement of the long bone fracture.